

CLAIMS

What is claim d is:

1. An untwisted wrapped singles yarn comprising:
 - a. a core strand comprising a member selected from the group consisting of a sliver and a bulked continuous filament yarn; and
 - b. a wrapper yarn comprising a member selected from the group consisting of a spun staple yarn and a continuous filament yarn;wherein said wrapper yarn comprises at least one base synthetic fiber material and a heat activated binder fiber having a melting point at least 20°C lower than the base synthetic fiber.
2. An untwisted wrapped singles yarn as recited by Claim 1, wherein the wrapper yarn is a continuous filament yarn of about 20 to 200 denier.
3. An untwisted wrapped singles yarn as recited by Claim 1, wherein the wrapper yarn is a continuous filament yarn of about 40 to 80 denier.
4. An untwisted wrapped singles yarn as recited by Claim 1, wherein the wrapper yarn contains about 5 to 95 weight percent of the heat activated binder fiber.
5. An untwisted wrapped singles yarn as recited by Claim 1, wherein the wrapper yarn contains about 15 to 85 weight percent of the heat activated binder fiber.
6. An untwisted wrapped singles yarn as recited by Claim 1, wherein the wrapper yarn contains about 25 to 75 weight percent of the heat activated binder fiber.
7. An untwisted wrapped singles yarn as recited by Claim 1, wherein the wrapper yarn makes about 2 to 10 wraps per inch about the core strand.
8. An untwisted wrapped singles yarn as recited by Claim 1, wherein the wrapper yarn makes about 3 to 5 wraps per inch about the core strand.
9. An untwisted wrapped singles yarn as recited by Claim 1, wherein the core strand is a sliver of about 0.8 to 6 cotton count.
10. An untwisted wrapped singles yarn as recited by Claim 1, wherein the core strand is a sliver of about 1 to 5 cotton count.

11. An untwisted wrapped singles yarn as recited by Claim 1, wherein the core strand is a sliver of about 1 to 3 cotton count.
12. An untwisted wrapped singles yarn as recited by Claim 1, wherein the core strand is a bulked continuous filament yarn of about 900 to 6000 denier.
- 5 13. An untwisted wrapped singles yarn as recited by Claim 1, wherein the core strand is a bulked continuous filament yarn of about 1000 to 5300 denier.
14. An untwisted wrapped singles yarn as recited by Claim 1, wherein the core strand is a bulked continuous filament yarn of about 1000 to 3000 denier.
- 10 15. An untwisted wrapped singles yarn as recited by Claim 1, wherein the core strand is comprised of at least one member selected from the group consisting of textile fibers of cotton, wool, polyester, polyolefin, and polyamide.
16. An untwisted wrapped singles yarn as recited by Claim 15, wherein the core strand contains about 0-12 weight percent of a heat activated binder fiber having a melting point at least about 20° lower than the textile fiber constituents.
- 15 17. An untwisted wrapped singles yarn as recited by Claim 15, wherein the core strand contains about 0 to 6 weight percent of a heat activated binder fiber having a melting point at least about 20° lower than the textile fiber constituents..
18. An untwisted wrapped singles yarn as recited by Claim 15, wherein the core strand contains about 0 to 3 weight percent of a heat activated binder fiber having a melting point at least about 20° lower than the textile fiber constituents.
- 20 19. An untwisted wrapped singles yarn as recited by Claim 15, wherein the core strand contains about 0 to 1 weight percent of a heat activated binder fiber having a melting point at least about 20° lower than the textile fiber constituents.
- 25 20. An untwisted wrapped singles yarn as recited by Claim 16, wherein the total content of heat activated binder fiber is about 0.05-2.5 weight percent of the total yarn.
21. An untwisted wrapped singles yarn comprising;
 - a. a core strand comprising a member selected from the group consisting of a sliver and a bulked continuous filament yarn;
 - 30 b. a wrapper yarn comprising continuous filament composite fibers;

wherein said composite fibers are composed of a base synthetic fiber material selected from the group consisting of polyester, polyolefin, polyamide, and a heat activated binder material having a melting point at least 20°C lower than the base synthetic fiber material.

5 22. An untwisted wrapped singles yarn as recited by Claim 21, wherein the composite fibers of the wrapper yarn have a sheath-core structure with the heat activated binder material comprising the sheath.

10 23. An untwisted wrapped singles yarn as recited by Claim 21, wherein the base synthetic fiber material and the heat activated binder material have a side-by-side relationship in the composite fibers of the wrapper yarn.

24. An untwisted wrapped singles yarn as recited by Claim 21, wherein the core strand is comprised of at least one member selected from the group consisting of textile fibers of cotton, wool, polyester, polyolefin, and polyamide.

15 25. An untwisted wrapped singles yarn as recited by Claim 24, wherein the core strand contains about 0-12 weight percent of a heat activated binder fiber having a melting point at least about 20° lower than the textile fiber constituents.

26. An untwisted wrapped singles yarn as recited by Claim 25, wherein the total content of heat activated binder fiber is about 0.05-2.5 weight percent of the total yarn.

20 27. A Saxony carpet untwisted wrapped singles yarn comprising :
b. a core strand comprising a member selected from the group consisting of a sliver and a bulked continuous filament yarn; and
c. a wrapper yarn comprising a member selected from the group consisting of a spun staple yarn and a continuous filament yarn;
25 wherein said wrapper yarn comprises at least one base synthetic fiber material selected from the group consisting of polyester, polyolefin, polyamide, and a heat activated binder fiber having a melting point at least 20°C lower than the base synthetic fiber.

30 28. A Saxony carpet manufactured from an untwisted wrapped singles yarn, wherein the untwisted wrapped singles yarn comprises:

a. a core strand comprising a member selected from the group consisting of a sliver and a bulked continuous filament yarn; and

b. a wrapper yarn comprising a member selected from the group consisting of a spun staple yarn and a continuous filament yarn; wherein said wrapper yarn comprises at least one base synthetic fiber material selected from the group consisting of polyester, polyolefin, polyamide, and a heat activated binder fiber having a melting point at least 20°C lower than the base synthetic fiber

29. The method of making a Saxony carpet comprising the steps:

- a. forming an untwisted core strand comprising at least one member selected from the group consisting of a natural or synthetic fiber;
- b. forming a wrapper yarn comprising at least one base synthetic fiber material, and a heat activated binder fiber having a melting point at least 20°C lower than the base synthetic fiber;
- c. wrapping the wrapper yarn about the core strand;
- d. heat setting the wrapped singles yarn at a temperature sufficient to melt the heat activated binder material, then subsequently cooling and solidifying said melt, thereby constricting the base synthetic fiber component of the wrapper yarn about the core strand and securing it to the core strand;
- e. incorporating the heat-treated yarn into a backing material as loops;
- f. cutting the loops to form vertical tufts; and
- g. dying and finishing.